

Applicant : Robert E. Weinstein
Serial No. : 10/028,003
Filed : Dec. 20, 2001
Page : 12 of 16

Attorney's Docket No.: 17539-012001 / STL 10375

REMARKS

In the non-final office action mailed March 16, 2004, the Examiner allowed claims 1-25, rejected claims 26-28, and objected to claims 29 and 30. The Examiner also indicated that claims 29 and 30 would be allowable if rewritten in independent form. In response, Applicants add claims 31 and 32. As such, claims 1-32 are pending. Applicants request that the Examiner reconsider claims 26-30, and examine claims 31 and 32 in view of the amendments and the arguments below.

Claims 1-25: Allowed Claims

Applicants thank the Examiner for allowing claims 1-25.

Claim Rejection 35 U.S.C. § 103 – Claims 26-30

The Examiner rejected claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Cross. Relying on Cross for teaching all the limitations of claim 26, the Examiner rejected claim 27 over Cross, and claim 28 over Cross in view of Takeuchi. The Examiner also objected to claim 29-30, as being dependent on a rejected base claim, namely claim 28. Applicants submit that independent claim 26, as well as claims 27-30 that depend directly or indirectly from claim 26, each define an invention that is patentable over the combination of the cited references. Applicants' identification of the differences between the claimed invention and the cited reference should not be taken as an admission that the cited reference is properly considered prior art under any provision of 35 U.S.C. §§ 102 or 103.

As an initial matter, Applicants respectfully traverse Examiner's rejection of independent claim 26 on the ground that the claim has not yet been properly examined. Applicants submit that independent claim 26 includes a limitation that is in proper means-plus-function format, as does dependent claim 28. As such, these claim limitations deserve analysis by the Examiner using the Guidelines for examination set forth in M.P.E.P. §§ 2181-2186 (2003). These Guidelines guide the examination of claims written in accordance with 35 U.S.C. § 112, ¶6. Thus, the Examiner has the burden of determining patentability of these claims according to the

Applicant : Robert E. Weinstein
Serial No. : 10/028,003
Filed : Dec. 20, 2001
Page : 13 of 16

Attorney's Docket No.: 17539-012001 / STL 10375

Guidelines. Accordingly, Applicants respectfully request that the Examiner reconsider rejected claim 26-28 according to the Guidelines. After a proper examination of these claims in view of the Guidelines, Applicants submit that the Examiner will agree that claims 26-30 are allowable.

Applicants' claim 26 is directed to a disc drive having a data storage disc rotatably mounted to a base plate and an actuator arm mounted on the base plate adjacent the disc. The disc drive includes a transducer attached to the actuator arm operable to write data to and thereafter read data stored on a recordable media of the disc over a predetermined time period divided into a plurality of time intervals. The disc drive also includes means for determining whether the recordable media will be inoperable to store data at a predetermined time by measuring bit error rates for the media at specified interval points during the predetermined time period and estimating therefrom a bit error rate for the media at the predetermined time.

Cross discloses a method and apparatus for providing adaptive drive-level compensation for amplitude and BER (bit error rate) loss due to media thermal decay. (Abstract.) The extent of thermal decay is determined. (Col. 8, lns. 42-48.) An evaluation may then be made as to whether the BER has dropped below its specifications. (Col. 8, lns. 48-51.) If so, a compensation scheme would be triggered. (Col. 8, lns. 51-53.) For example, the compensation scheme may be triggered if the absolute amount of measured decay is greater than 10%. (Col. 8, lns. 52-54.)

Applicants submit that Cross does not anticipate Applicants' claim 26. Based upon the second office action, it appears that the Examiner agrees. The Examiner stated, "It would have been obvious to a person of ordinary skill in the art, to instead of performing an (sic) compensation scheme as cited by Cross, to indicate that the performance of the drive to be unacceptable." (Office Action, p. 3.) However, Applicants respectfully submit that "indicating that the performance of the drive to be unacceptable" is not an element of Applicants' claim 26. Accordingly, the Examiner has not shown that Cross teaches "means for determining whether the recordable media will be inoperable to store data at a predetermined time by measuring bit error rates for the media at specified interval points during the predetermined time period and estimating therefrom a bit error rate for the media at the predetermined time."

Applicant : Robert E. Weinstein
Serial No. : 10/028,003
Filed : Dec. 20, 2001
Page : 14 of 16

Attorney's Docket No.: 17539-012001 / STL 10375

Applicants submit that Cross does not disclose each and every element of Applicants' claim 26. For example, Cross does not teach or suggest Applicants' claim limitation of "determining whether the recordable media will be inoperable to store data at a predetermined time." Nor does Cross teach or suggest "estimating" a bit error rate from measurements made "at specified interval points during a predetermined time period." Rather, Cross teaches using a measured bit error rate to decide whether or not to trigger a compensation scheme. (See 470 in Fig. 4B, and Col. 8, lns. 48-52.) As such, Cross does not disclose a required element of Applicants' claim 26. Thus, Cross does not anticipate Applicants' claim 26.

Neither does Cross render claim 26 obvious. Applicants' claimed disk drive provides capabilities that the cited reference not only cannot provide, but capabilities that the cited reference does not even contemplate. For example, Applicants' claimed invention can be used to determine "whether the recordable media will be inoperable to store data at predetermined times." Thus, Applicants' claim 26 relates to estimating a bit error rate at a predetermined time in the future. Cross does not mention or suggest a system that can estimate future performance. Instead of "measuring bit error rates for the media at specified interval points" to estimate a bit error rate at a future "predetermined time," Cross teaches measuring the bit error rate to evaluate whether the bit error rate is out of specification at the present time. Cross makes this measurement to determine when to trigger a compensation scheme. (Col. 8, lns. 48-52.) In contrast to Applicant's claimed invention, Cross is silent as to estimating a bit error rate for the media at a future "predetermined time."

Moreover, Applicant's claimed device has features that provide further advantages over Cross. For example, during product development of a new disc drive, it may be important to determine whether various recordable media will be operable to store data with an acceptable bit error rate over the service life of the disc drive. Applicants' claimed invention may be used to estimate the bit error rate for the recordable media at predetermined times, such as the end of service life. In addition, these estimates may be made using different recordable media so that the different recordable media may be compared and evaluated for use in the new product. Furthermore, using Applicants' claimed invention allows such estimates to be made in an

Applicant : Robert E. Weinstein
Serial No. : 10/028,003
Filed : Dec. 20, 2001
Page : 15 of 16

Attorney's Docket No.: 17539-012001 / STL 10375

accelerated time frame (hours instead of years). As such, service life of a potential new product may be estimated quickly during product development. Accordingly, the ability to rapidly estimate future bit error rate for various recordable media may, for example, enable the rapid identification of lower cost recordable media that can meet or exceed bit error rate performance specifications over the service life of the new disc drive. In contrast, the disclosure in Cross does not provide any teaching that can provide these same advantages. As such, Applicants' claimed invention can enhance product development of disc drives in ways that Cross does not teach or suggest.

For at least the foregoing reasons, Applicants submit that claim 26 defines an invention that is patentable over Cross, as do claims 27-30 which each depend from claim 26, either directly or indirectly. Accordingly, Applicants request that these claims be allowed.

New Claims 31 and 32

Applicants have added new independent claims 31 and 32. Applicants submit that these claims are allowable subject matter, and that these amendments introduce no new matter. Accordingly, Applicants respectfully request that these claims be allowed.

Conclusion

Applicants submit that claims 1-32 are now in condition for allowance. Accordingly, Applicants respectfully request that the Examiner issue a timely Notice of Allowance in this case for all of claims 1-32.

Applicants believe that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper.

Applicant : Robert E. Weinstein
Serial No. : 10/028,003
Filed : Dec. 20, 2001
Page : 16 of 16

Attorney's Docket No.: 17539-012001 / STL 10375

Please charge deposit account 06-1050 in the amount of \$172.00 for excess claim fees.
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Respectfully submitted,

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